

Docket No. 030123

Serial No. 10/734,382

AMENDMENTS TO THE CLAIMS:

1. (Cancelled) A method of performing SPS acquisition interleaved with receiving paging information over a wireless slotted paging channel and receiving data packets over a wireless data communication system, comprising:
 tuning to a pilot channel;
 synchronizing an internal clock of a wireless remote unit with a pilot signal transmitted over the pilot channel; and
 after completing synchronizing the internal clock, starting a search for SPS satellites.
2. (Cancelled) The method of claim 1, wherein turning a pilot channel during a scheduled paging slot.
3. (Cancelled) The method of claim 1, wherein turning a pilot channel when the remote unit becomes aware of the need to search for SPS satellites.
4. (Cancelled) The method of claim 2 further comprising:
 determining that a search will be completed prior to the beginning a paging slot;
 wherein starting a search for SPS satellites if the search will be completed prior to the beginning a next paging slot.
5. (Cancelled) The method of claim 4, wherein determining that a search will be completed prior to the beginning a paging slot comprises:
 determining the amount time required for the last attempt at search and acquisition.
6. (Cancelled) The method of claim 4, wherein determining that a search will be completed prior to the beginning a paging slot comprises:
 determining the amount time required for two or more recent attempts at search and acquisition.
7. (Cancelled) A wireless remote unit for performing SPS acquisition interleaved with receiving paging information over a wireless slotted paging channel and receiving data packets over a wireless data communication system, comprising:

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means for tuning to a pilot channel;

means for synchronizing an internal clock of a wireless remote unit with a pilot signal transmitted over the pilot channel; and

means for starting a search for SPS satellites after completing synchronizing the internal clock.

8. (New) A method for operating a wireless remote unit, including a receiver and an internal clock, comprising the steps of:

tuning, at a first time, the receiver to a pilot signal, having a pilot frequency, transmitted from a first communication base station;

receiving, by the receiver, the pilot signal from the first communication base station, responsive to the step of tuning the receiver to the pilot signal;

synchronizing the internal clock with the pilot signal, responsive to the step of receiving the pilot signal;

tuning, at a second time, different from the first time, the receiver to at least one satellite signal having a satellite frequency, different from the pilot frequency, transmitted from at least one satellite in a satellite positioning system (SPS), responsive to the step of synchronizing; and

receiving, by the receiver, the at least one satellite signal from the at least one satellite, responsive to the step of tuning the receiver to the at least one satellite signal.

9. (New) The method, according to claim 8, wherein the step of synchronizing further comprises the step of:

updating at least one of the following for the internal clock: a clock frequency and a time of day.

10. (New) The method, according to claim 8, further comprising the steps of:

estimating that synchronizing the internal clock with the pilot signal is less accurate than synchronizing the internal clock with the at least one satellite signal, responsive to the step of receiving the at least one satellite signal; and

synchronizing the internal clock with the at least one satellite signal, responsive to the step of estimating.

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11. (New) The method according to claim 8, further comprising the steps of:
receiving a request to receive the at least one satellite signal,
determining that the wireless remote unit is not presently tuned to another signal responsive to the step of receiving the request;
estimating that a first expiration of a first time period needed to perform the steps of: tuning to the pilot signal, receiving the pilot signal, synchronizing, tuning to the at least one satellite signal, and receiving the at least one satellite signal, is less than a second expiration of a second time period at which the wireless remote unit is scheduled to perform the step for tuning to the pilot signal, responsive to receiving the request; and
performing the steps of: tuning to the pilot signal, receiving the pilot signal, synchronizing, tuning to the at least one satellite signal, and receiving the at least one satellite signal, responsive to the steps of determining and estimating.
12. (New) The method according to claim 11, wherein the step of estimating further comprises the step of:
using at least one recent estimate of the first expiration of the first time period.
13. (New) The method according to claim 11, further comprising the step of:
preventing demodulation of data during the step of receiving the pilot signal.
14. (New) The method according to claim 8, further comprising the steps of:
tuning, at third time, different from the first time or the second time, the receiver to a data signal, having a data frequency, different from the pilot frequency and the satellite frequency, transmitted from a second communication base station; and
receiving, by the receiver, the data signal from the second communication base station, responsive to the step of tuning to the data signal;
15. (New) The method according to claim 14, wherein the first communication base station and the second communication base station are the same or different communication base stations.

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16. (New) The method according to claim 14, wherein the second time is between the first time and the third time.
17. (New) The method according to claim 8, further comprising the step of:
expecting to receive the pilot signal at a scheduled time,
wherein the step of tuning to the pilot signal is performed responsive to the step of expecting.
18. (New) The method according to claim 8, wherein the at least one satellite signal is encoded using a code division multiple access (CDMA) encoding scheme.
19. (New) The method according to claim 8, wherein the pilot signal is encoded using a code division multiple access (CDMA) encoding scheme.
20. (New) The method according to claim 8, wherein the pilot signal is received during slotted paging communications.
21. (New) The method according to claim 8, further comprising the step of:
processing location information, representative of a location of the wireless remote unit, responsive to the steps of synchronizing and receiving the at least one satellite signal.
22. (New) The method according to claim 8, wherein the step of tuning the receiver to the at least one satellite signal is performed immediately after the step of synchronizing is completed.
23. (New) A wireless remote unit comprising:
a tuner for:
tuning, at a first time, a receiver to a pilot signal, having a pilot frequency, transmitted from a first communication base station, and
tuning, at a second time, different from the first time, the receiver to at least one satellite signal having a satellite frequency, different from the pilot frequency, transmitted from at least one satellite in a satellite positioning system (SPS);

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a receiver for:

receiving the pilot signal from the first communication base station, responsive to the tuner tuning the receiver to the pilot signal, and

receiving the at least one satellite signal from the at least one satellite, responsive to the tuner tuning the receiver to the at least one satellite signal;

an internal clock for providing timing information;

a processor for synchronizing the internal clock with the pilot signal, responsive to the receiver receiving the pilot signal.

24. (New) The wireless remote unit, according to claim 23, wherein the timing information further comprises:

at least one of the following: a clock frequency and a time of day.

25. (New) The wireless remote unit, according to claim 23, wherein the at least one satellite signal is encoded using a code division multiple access (CDMA) encoding scheme.

26. (New) The wireless remote unit, according to claim 23, wherein the pilot signal is encoded using a code division multiple access (CDMA) encoding scheme.